

Mineral Industry Surveys

For information, contact:

Thomas S. Jones, Silicon Commodity Specialist

U.S. Geological Survey

989 National Center

Reston, VA 20192

Telephone: (703) 648-4973, Fax: (703) 648-7757

E-mail: tjones@usgs.gov

Lisa D. Miller (Data)

Telephone: (703) 648-7973

Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999

Internet: <http://minerals.usgs.gov/minerals>

SILICON IN MARCH 2000

In **March**, overall domestic shipments and production of silicon ferroalloys plus metal, excluding silvery pig iron, were estimated to have increased by about 15% and 7%, respectively, compared with the corresponding figures for the prior month, according to the U.S. Geological Survey. Accordingly, the average daily rate increased by about 7% for shipments and was almost unchanged for production. Total producer stocks were estimated to have decreased by about 5%.

February trade data are included in this report. Trade data for March were unavailable at the time of publication and will be included in a subsequent report. The Customs Service, U.S. Department of the Treasury, notified importers that it was again accepting claims for duty-free treatment under the Generalized System of Preferences (GSP) program and processing refunds for duties paid during the period that the GSP program temporarily had lapsed. This program had lapsed June 30, 1999, but it was renewed retroactively to this date and made effective through September 30, 2001 (Customs Service, 2000).

Dow Corning Corp. completed the acquisition of Brazil's Companhia Brasileira Carbureto de Calcio (CBCC), which is capable of annually producing 40,000 tons of silicon metal and

20,000 tons of ferrosilicon. Dow Corning plans to convert CBCC's facilities within a few years so as to be able to produce 60,000 tons annually of silicon metal (Sissell, 2000).

In Norway, Fesil ASA began restarting two silicon metal furnaces that had been out of service for nearly 1 year. The combined capacity of the furnaces being restarted, one of each at the company's Holla Metall and Lilleby Metall plants, was 17,000 tons per year (Platt's Metals Week, 2000).

Published prices for silicon-based commodities are listed below (**Source: Platt's Metals Week**). Ferrosilicon prices are based on the contained weight of silicon. All prices are posted in cents per pound.

References Cited

Customs Service, 2000, Renewal of the Generalized System of Preferences program: Federal Register, v. 65, no. 42, March 2, p. 11367-11368.

Platt's Metals Week, 2000, Fesil to restart silicon furnaces: Platt's Metals Week, v. 71, no. 10, p. 3.

Sissell, Kara, 2000, Dow Corning acquires metals unit from Solvay: Chemical Week, v. 162, no. 12, March 22, p. 16.

Dealer Import Prices

	<u>50% Ferrosilicon</u>	<u>75% Ferrosilicon</u>	<u>Silicon Metal</u>
March 1	43.0-47.0	35.0-37.0	57.0-58.0
March 8	43.0-47.0	35.0-37.0	57.0-58.0
March 15	43.0-47.0	35.0-37.0	57.0-58.0
March 22	43.0-47.0	35.0-37.0	57.0-58.0
March 29	43.0-47.0	36.0-39.0	58.0-59.0

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL 1/ 2/ 3/

(Metric tons)

Material	2000				
	Gross production 4/		Net shipments		Stocks March 31
	March	Year to date	March	Year to date	
Ferrosilicon:					
25%-55% silicon 5/	16,500	59,000	15,100	42,200	44,700
56%-95% silicon	10,300	29,500	9,860	28,500	29,600
Silicon metal:					
Excludes semiconductor grades	17,100	50,400	16,200	50,200	7,660

1/ Data are rounded to no more than three significant digits.

2/ Includes U.S. Geological Survey estimates.

3/ Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

4/ Ferrosilicon production includes material consumed in the production of miscellaneous silicon alloys.

5/ Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN FEBRUARY 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	528	317	\$408,000	934	560	\$698,000
Costa Rica	3	2	2,790	3	2	2,790
Korea, Republic of	162	97	130,000	348	209	278,000
Mexico	323	214	311,000	1,020	663	778,000
Total	1,020	630	851,000	2,310	1,430	1,760,000
Other ferrosilicon:						
Australia	60	30	47,300	154	77	122,000
Canada	572	286	393,000	997	499	663,000
China	379	190	300,000	487	243	385,000
Germany	33	17	55,800	33	17	55,800
India	459	230	363,000	601	301	475,000
Japan	291	145	235,000	363	181	298,000
Mexico	162	81	219,000	351	175	468,000
Norway	25	13	19,800	36	18	33,400
South Africa	18	9	20,500	18	9	20,500
Taiwan	21	10	58,200	21	10	58,200
United Kingdom	349	175	267,000	916	458	776,000
Total	2,370	1,180	1,980,000	3,980	1,990	3,340,000
Total ferrosilicon	3,390	1,810	2,830,000	6,290	3,420	5,100,000
Metal:						
More than 99.99 % silicon:						
China	17	XX	316,000	20	XX	370,000
Denmark	4	XX	277,000	8	XX	598,000
France	23	XX	675,000	24	XX	743,000
Germany	16	XX	509,000	23	XX	1,840,000
Italy	7	XX	428,000	10	XX	744,000
Japan	341	XX	15,100,000	536	XX	24,900,000
Korea, Republic of	11	XX	1,630,000	47	XX	3,620,000
Malaysia	11	XX	2,530,000	20	XX	4,290,000
Poland	5	XX	209,000	8	XX	312,000
Taiwan	29	XX	1,180,000	60	XX	2,240,000
Other (23 countries)	21	XX	1,610,000	31	XX	2,580,000
Total	487	487 e/	24,500,000	786	786 e/	42,300,000
99.00% - 99.99% silicon:						
France	48	48	68,000	193	192	269,000
Israel	--	--	--	4	4	5,480
Japan	--	--	--	38	38	53,800
Mexico	--	--	--	240	238	240,000
Total	48	48	68,000	475	471	569,000

See footnotes at end of table.

TABLE 2--Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN FEBRUARY 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal--Continued:						
Other silicon:						
Canada	262	255	\$267,000	685	665	\$702,000
China	16	16	92,700	16	16	92,700
Dominican Republic	11	11	14,500	13	12	23,100
Germany	--	--	--	79	76	104,000
Italy	--	--	--	21	21	38,900
Japan	14	14	18,900	50	49	66,100
Korea, Republic of	5	5	8,550	12	11	17,100
Mexico	316	307	665,000	712	691	1,760,000
Philippines	32	31	42,200	32	31	42,200
Taiwan	41	40	54,500	92	90	122,000
Other (8 countries)	11	11	23,100	23	22	50,000
Total	709	688	1,190,000	1,740	1,680	3,020,000
Total silicon metal	1,240	1,220	25,700,000	3,000	2,940	45,800,000

e/ Estimated. XX Not applicable. -- Zero.

1/ Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN FEBRUARY 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Argentina	18	12	\$17,800	53	33	\$50,700
Brazil	40	24	42,500	60	38	61,500
France	18	13	28,800	54	31	86,300
Macedonia	3,200	2,400	1,700,000	3,200	2,400	1,700,000
Total	3,270	2,450	1,790,000	3,370	2,510	1,900,000
55% - 80% silicon, Other:						
Brazil	--	--	--	84	65	23,500
Canada	622	474	433,000	1,020	779	776,000
France	160	108	307,000	238	162	462,000
Germany	17	13	80,900	50	38	244,000
Mexico	12	9	48,000	12	9	48,000
Norway	9,480	7,140	5,500,000	18,100	13,700	10,500,000
Portugal	--	--	--	385	292	105,000
Russia	770	547	315,000	2,150	1,570	1,020,000
South Africa	606	443	325,000	1,880	1,410	982,000
United Kingdom	12	8	81,800	23	17	161,000
Venezuela	6,690	5,020	3,530,000	6,730	5,050	3,550,000
Total	18,400	13,800	10,600,000	30,700	23,100	17,800,000
More than 90% silicon:						
Canada 3/	17	17	22,500	17	17	22,500
Magnesium ferrosilicon:						
Argentina	80	38	69,200	320	154	257,000
Brazil	633	296	479,000	1,280	563	919,000
Canada	20	10	32,300	57	27	72,100
China	360 3/	114 3/	227,000 3/	900	373	598,000
Japan	16	8	36,700	31	16	73,500
Netherlands	20	10	18,400	20	10	18,400
Norway	756	349	679,000	1,430	660	1,310,000
Total	1,890	824	1,540,000	4,040	1,800	3,250,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN FEBRUARY 2000 1/ 2/

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon--Continued:						
Other ferrosilicon:						
Canada	1,340	438	\$1,050,000	2,220	721	\$1,720,000
Japan	--	--	--	17	861	28,600
Norway	--	--	--	40	6	47,800
South Africa	--	--	--	27	4	24,500
Total	1,340	438	1,050,000	2,300	1,590	1,820,000
Total ferrosilicon	24,900	17,500	15,000,000	40,400	29,000	24,800,000
Metal:						
More than 99.99% silicon:						
Australia	(4/)	XX	2,500	(4/)	XX	2,500
Denmark	(4/)	XX	13,100	(4/)	XX	19,900
Germany	27	XX	3,930,000	72	XX	9,610,000
Italy	21	XX	1,120,000	84	XX	4,130,000
Japan	39	XX	2,010,000	61	XX	2,940,000
Korea, Republic of	16	XX	229,000	24	XX	346,000
Russia	(4/)	XX	7,100	(4/)	XX	7,100
Spain	(4/)	XX	2,380	(4/)	XX	2,380
Sweden	1	XX	72,000	1	XX	136,000
Switzerland	--	--	--	(4/)	XX	5,890
Taiwan	(4/)	XX	9,320	(4/)	XX	9,320
Total	103	103 e/	7,400,000	242	242 e/	17,200,000
99.00% - 99.99% silicon:						
Australia	--	--	--	18	18	24,700
Brazil	961	954	1,200,000	3,960	3,930	4,680,000
Canada	443	440	599,000	1,630	1,610	2,280,000
China	--	--	--	240	238	205,000
Japan	9	1	12,200	41	1	53,000
Korea, Republic of	120 3/	119 3/	106,000 3/	180	178	158,000
Norway	--	--	--	380	385	617,000
Russia	858 3/	781 3/	931,000 3/	2,510	2,420	2,520,000
Saudi Arabia	970	961	938,000	1,300	1,290	1,250,000
South Africa	3,160	3,130	3,340,000	3,420	3,390	3,590,000
Others (2 countries)	3	3	21,700	3	3	21,700
Total	6,520	6,390	7,150,000	13,700	13,500	15,400,000
Other silicon:						
Canada	1,760	1,730	1,960,000	2,920	2,890	3,600,000
China	336	331	317,000	756	745	650,000
Korea, Republic of	180 3/	177 3/	158,000 3/	240	236	210,000
Russia	1,550	1,520	1,220,000	3,110	3,060	2,460,000
South Africa	103	101	98,400	811	387	191,000
United Kingdom	38	37	50,900	38	37	50,900
Total	3,960	3,900	3,810,000	7,880	7,360	7,160,000
Total silicon metal	10,600	10,400	18,400,000	21,800	21,100	39,800,000

e/ Estimated. XX Not applicable. -- Zero.

1/ Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top ten countries.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

3/ All or part of these data have been referred to the Bureau of the Census for verification.

4/ Less than 1/2 unit.

Source: Bureau of the Census.